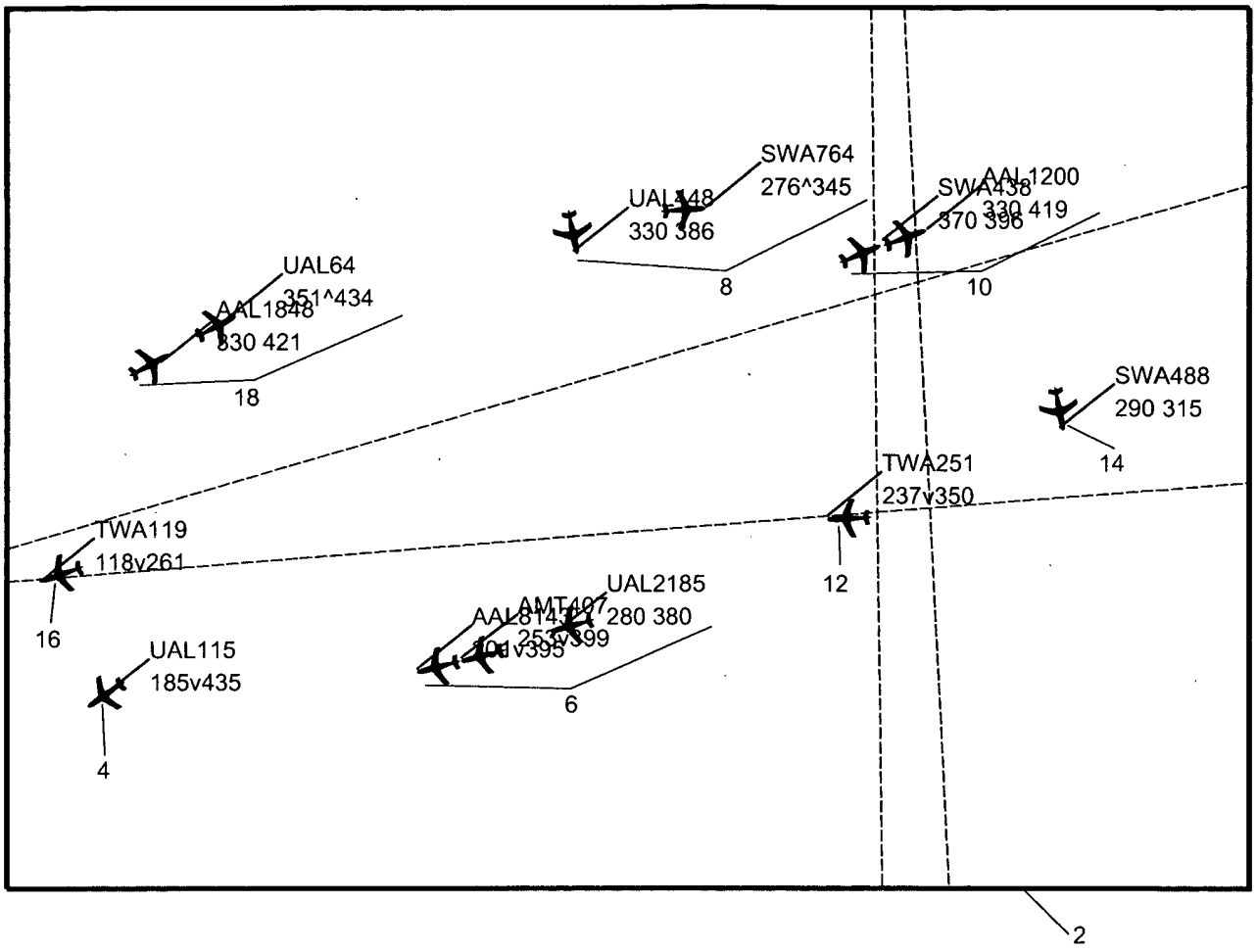
SWA764
276^345
UAL148
330 386
AAL1200
SWA438
330 419
370 396
UAL64
351^434
AAL1848
330 421
8
10
18
SWA488
290 315
14
TWA251
237v350
TWA119
118v261
12
16
UAL2185
280 380
UAL115
185v435
6
4
2

Fig. 1

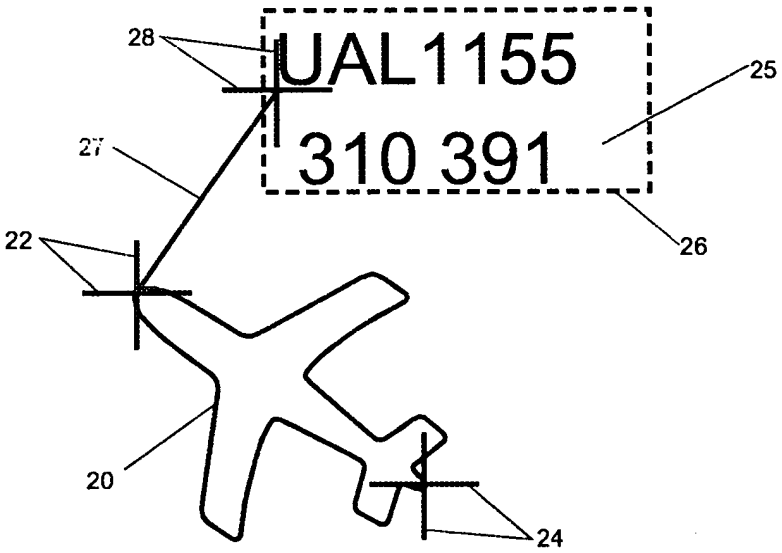

Fig. 2

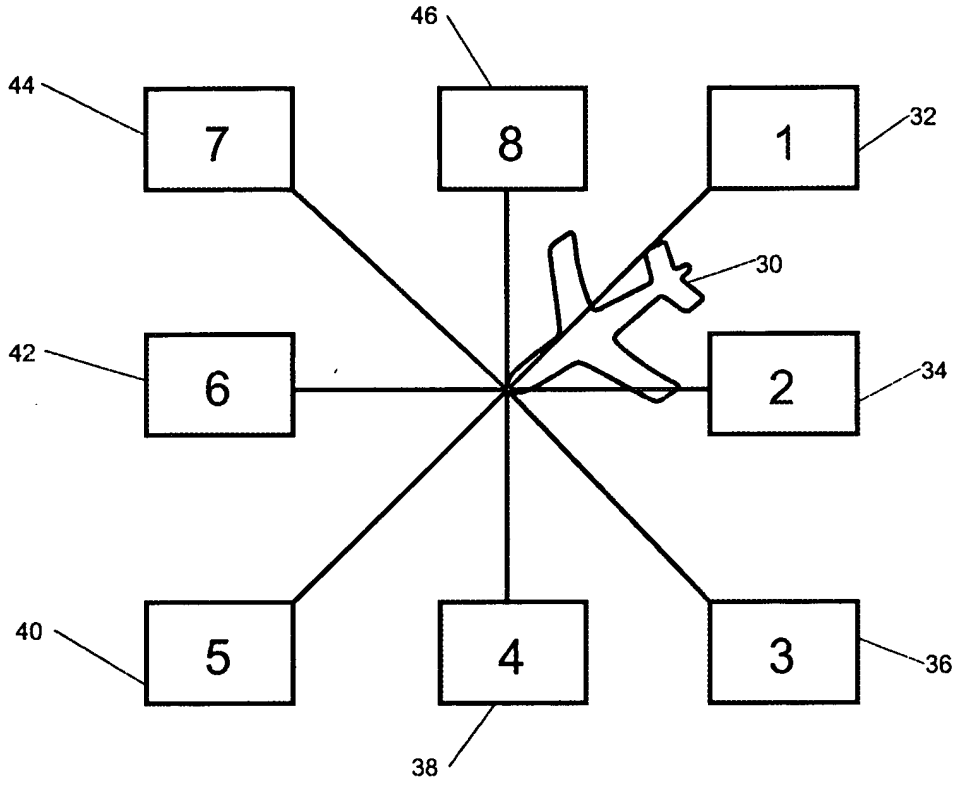

Fig. 3

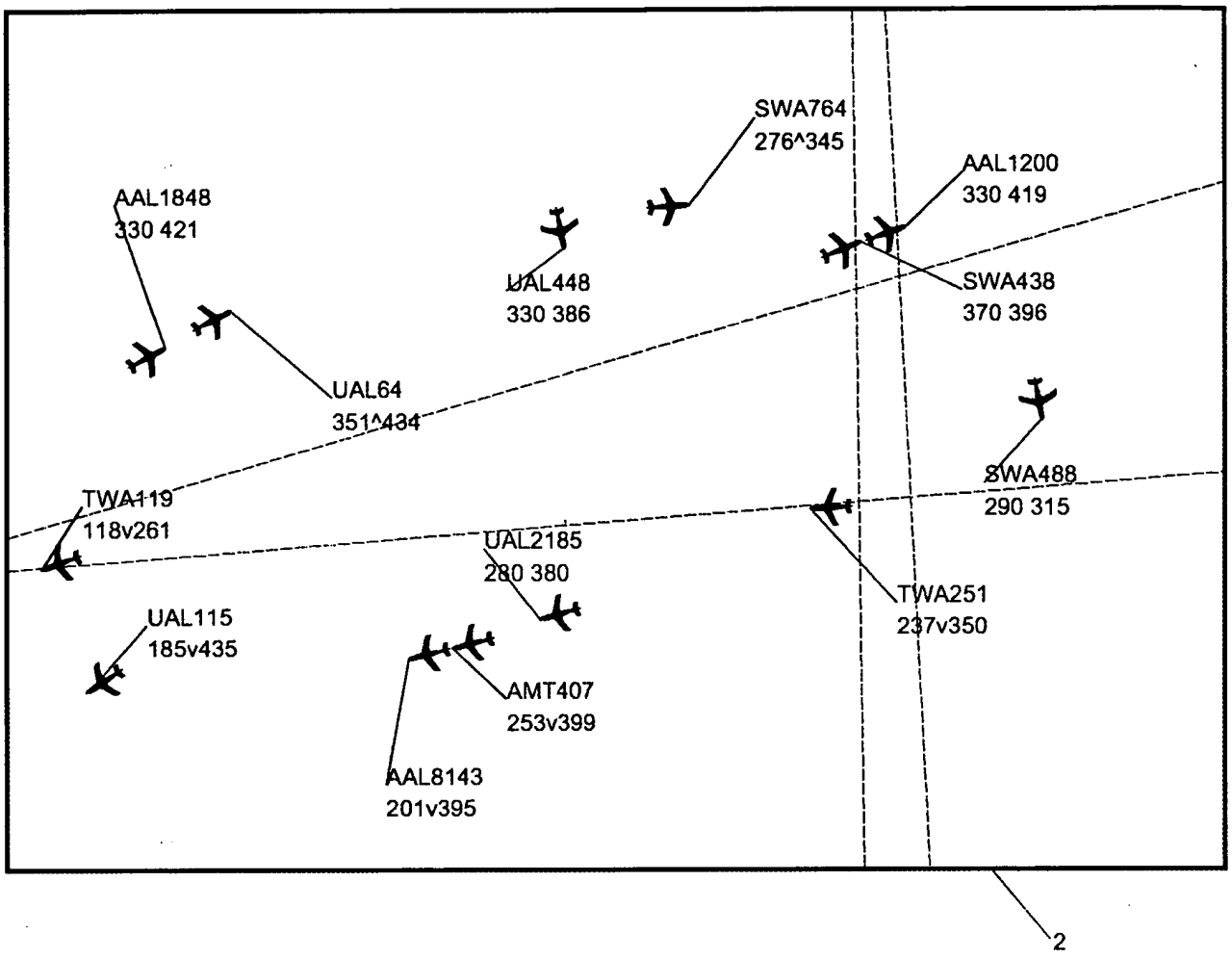
SWA764
276^345
AAL1200
330 419
AAL1848
330 421
UAL448
330 386
SWA438
370 396
UAL64
351^434
SWA488
290 315
TWA119
118v261
UAL2185
280 380
TWA251
237v350
UAL115
185v435
AMT407
253v399
AAL8143
201v395
2

Fig. 4

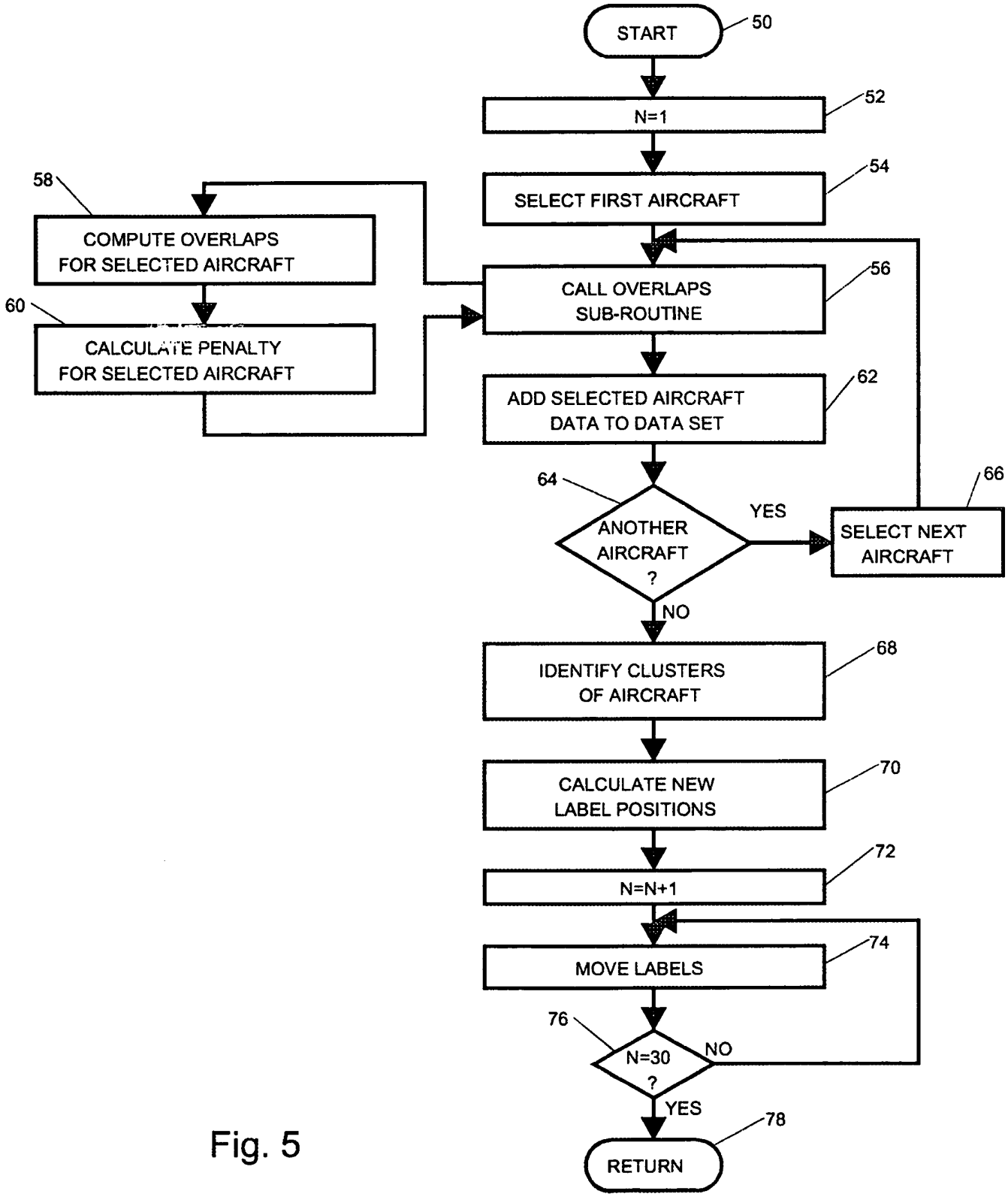
START
50
N=1
52
SELECT FIRST AIRCRAFT
54
CALL OVERLAPS SUB-ROUTINE
56
ADD SELECTED AIRCRAFT DATA TO DATA SET
62
64
ANOTHER AIRCRAFT ?
YES
66
SELECT NEXT AIRCRAFT
NO
IDENTIFY CLUSTERS OF AIRCRAFT
68
CALCULATE NEW LABEL POSITIONS
70
N=N+1
72
MOVE LABELS
74
76
N=30 ?
NO
YES
78
RETURN
58
COMPUTE OVERLAPS FOR SELECTED AIRCRAFT
60
CALCULATE PENALTY FOR SELECTED AIRCRAFT

Fig. 5

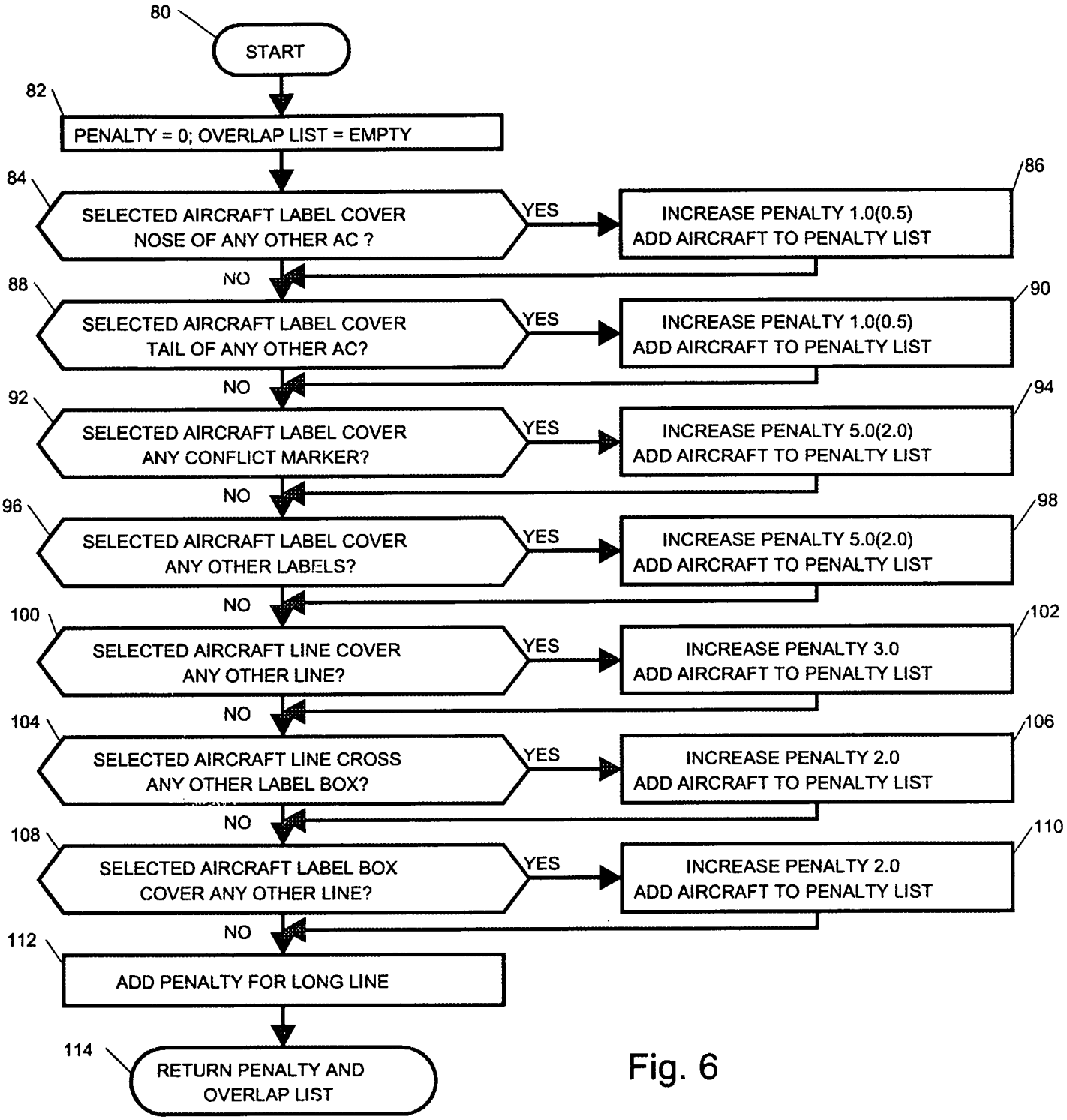
80
START
82
PENALTY = 0; OVERLAP LIST = EMPTY
84
SELECTED AIRCRAFT LABEL COVER NOSE OF ANY OTHER AC ?
YES
86
INCREASE PENALTY 1.0(0.5)
ADD AIRCRAFT TO PENALTY LIST
NO
88
SELECTED AIRCRAFT LABEL COVER TAIL OF ANY OTHER AC?
YES
90
INCREASE PENALTY 1.0(0.5)
ADD AIRCRAFT TO PENALTY LIST
NO
92
SELECTED AIRCRAFT LABEL COVER ANY CONFLICT MARKER?
YES
94
INCREASE PENALTY 5.0(2.0)
ADD AIRCRAFT TO PENALTY LIST
NO
96
SELECTED AIRCRAFT LABEL COVER ANY OTHER LABELS?
YES
98
INCREASE PENALTY 5.0(2.0)
ADD AIRCRAFT TO PENALTY LIST
NO
100
SELECTED AIRCRAFT LINE COVER ANY OTHER LINE?
YES
102
INCREASE PENALTY 3.0
ADD AIRCRAFT TO PENALTY LIST
NO
104
SELECTED AIRCRAFT LINE CROSS ANY OTHER LABEL BOX?
YES
106
INCREASE PENALTY 2.0
ADD AIRCRAFT TO PENALTY LIST
NO
108
SELECTED AIRCRAFT LABEL BOX COVER ANY OTHER LINE?
YES
110
INCREASE PENALTY 2.0
ADD AIRCRAFT TO PENALTY LIST
NO
112
ADD PENALTY FOR LONG LINE
114
RETURN PENALTY AND OVERLAP LIST

Fig. 6

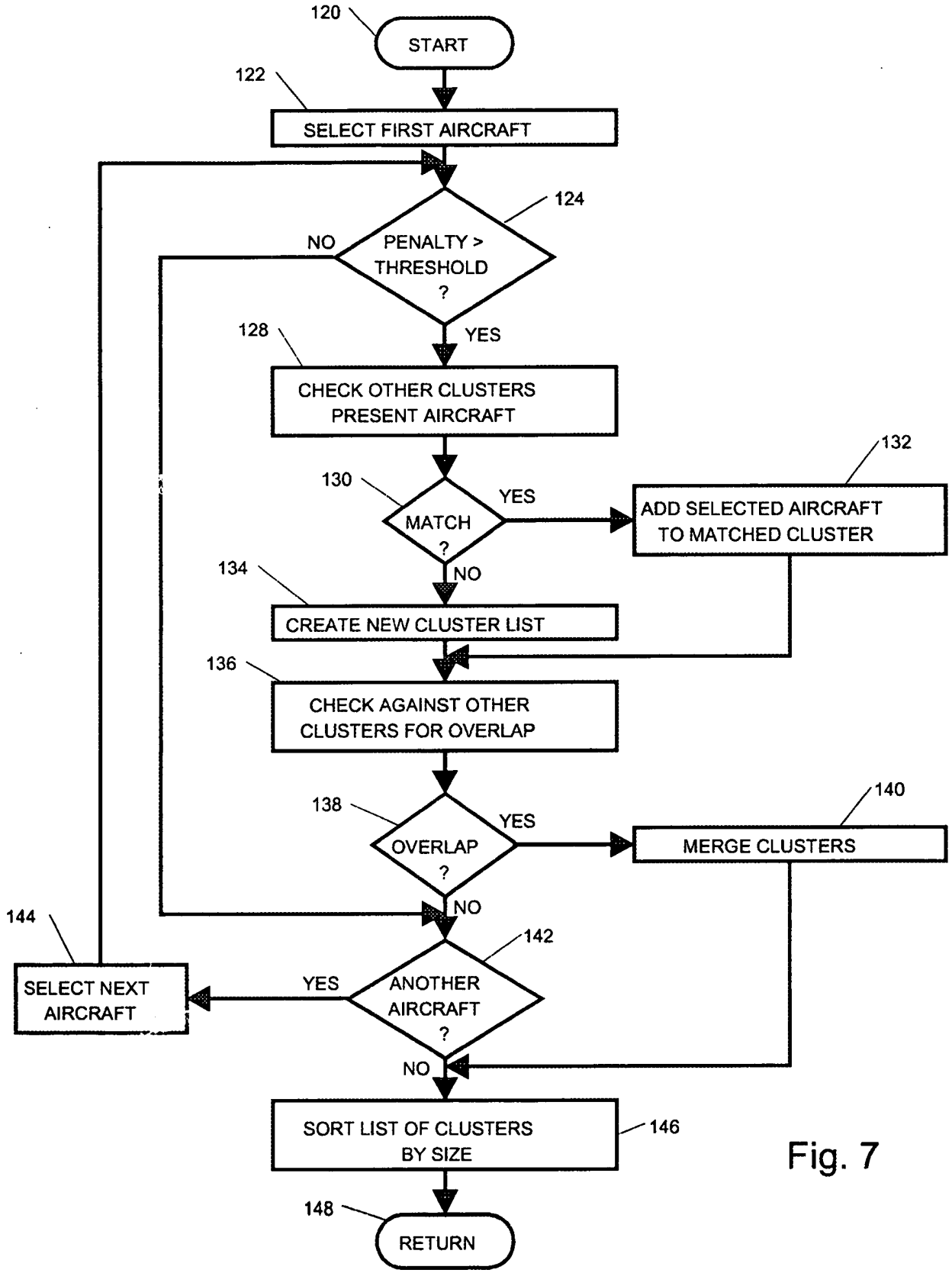
120
START
122
SELECT FIRST AIRCRAFT
124
PENALTY > THRESHOLD ?
NO
YES
128
CHECK OTHER CLUSTERS PRESENT AIRCRAFT
130
MATCH ?
YES
132
ADD SELECTED AIRCRAFT TO MATCHED CLUSTER
NO
134
CREATE NEW CLUSTER LIST
136
CHECK AGAINST OTHER CLUSTERS FOR OVERLAP
138
OVERLAP ?
YES
140
MERGE CLUSTERS
NO
142
ANOTHER AIRCRAFT ?
YES
144
SELECT NEXT AIRCRAFT
NO
146
SORT LIST OF CLUSTERS BY SIZE
148
RETURN

Fig. 7